

COST *and* MANAGEMENT

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EDITORIAL

The Banker's Viewpoint

One could not fail to be interested in the various speeches at the recent annual meeting of the Bank of Montreal, for such speeches are always interesting. Sir Charles Gordon, G.B.A., in his Presidential address had many things to say concerning the outlook for the future, which (to him at any rate), appeared to be quite bright, but all this is old stuff and is the usual thing at such affairs. One could not, however, fail to be impressed by the closing remarks of the President, which we not only quote, but also venture the opinion that most people will heartily agree. Said Sir Charles:

"Never did we Canadians need to be united as we do now. Let us relegate our parochial squabbles to their rightful subordinate place and, as a nation, face with a united front the great era to which the finger of destiny so unmistakably is pointing."

Sound advice, true; but, the pity is that, while most people will agree, those who need the advice most will most likely fail to heed it.

Economy in Governments.

Mr. G. W. Spinney, General Manager of the Bank, took an entirely different line, but one not less interesting. Dealing with what he termed excessive taxation in business, Mr. Spinney said:

"Business men have had to economize to tide over a period of reduced earnings and higher taxation, yet most governmental bodies seem unable to follow a similar policy to any conspicuous extent.

"Perhaps one of the reasons why there is no widespread demand for economy in government is that so much of our taxation is of the hidden variety. The average citizen does not show concern at hidden taxation of which he is not immediately conscious, but resists such levies as direct sales tax which serve to remind him daily of the demands of government. It might, therefore, benefit the nation if some arrangements could be made in certain classes of taxation which would produce no higher actual charge to the individual, but which would result in his knowing the cost, and therefore assuming a direct and personal interest in government economy which he cannot be expected to have under the present system."

Few people will disagree with Mr. Spinney in this connection but, however much one may sympathize with governments in their present dilemma as regards money to be found for legitimate purposes, it would seem to this observer that the sooner governments generally, instead of sitting up nights trying to find ways and means of further taxation, mostly hidden, the sooner these governments institute a system of Cost Reduction,

the better for everyone. The issue has to be faced some time, and the sooner it is faced the easier the task will be.

Buying Changes

The reports emanating from Canadian manufacturers in regard to Christmas shopping up to date indicate a slightly lower trend than a year ago, but apparently there appears to be a feeling of confidence among them that the Christmas business this year will be equal to the trade of a year ago.

According to the Financial Post:

"In the last decade, for various reasons there has occurred a change in Canadian buying habits. No longer do people purchase far in advance. They seem to know that the merchants can, if necessary, put on extra help and at the last minute that supplies have been laid in to cope with any belated demand, and they are perfectly content to let the trade stand the worrying and carry the financial and physical load.

The fact that people nowadays are more out of doors, that extra funds for Christmas shopping are gathered together at almost the last moment, that living quarters are usually smaller and have less storage space for bulky parcels, have all played a part in this general procrastination of seasonal purchasing. Another buying trait noted in recent years is a trend towards greater utility and simplicity. In the old days gift buyers did not exercise the same discrimination. Apparently they proceeded on the happy-go-lucky theory that there was always room for one more article. Ties, bowls, vases, dressing gowns, sherbet glasses were purchased in happy profusion and there was a mad scramble to exchange on December 26th."

This change in public buying sentiment no doubt imposes an extra burden on the manufacturers and adds to their financing worries, but if the buying power is eventually exercised by the public, the ultimate effect in so far as they are concerned need not be injurious.

International Situation

International Situation.

Uncertainty still exists in the international situation. With the wars in China and Spain still continuing, with Italy and France executing a series of diplomatic manoeuvres and Britain warning Germany that unfair competition to win world trade will result in stern steps being taken to offset such action, there seems to be very few bright spots on the horizon to indicate a recovery from the confusion in which the world now finds itself.

As favorable factors in the situation we find Germany and France concluding an agreement which, it is hoped, will go a long way towards

maintaining peace between these two countries, and Britain, Canada and the United States signing new trade agreements to provide for the freer interchange of commodities needed by these countries.

What is required in all countries, whether they be democracies or totalitarian states, are leaders of broad vision who have under them men whose interests are primarily for the good of their countries and who have eliminated from their thoughts selfish ideas for their won personal aggrandizement.

At Headquarters

There comes across the Secretary's desk, from time to time, letters and requests which should be of interest to members generally and, bearing in mind the oft repeated requests from various members, that we write something of a more intimate or personal nature, we, intend, commencing with the January issue, to write such a column under the caption, "Across the Secretary's Desk."

We ask you to look for this column, to read it, and to let us have your reaction to it. Your letters are always appreciated and we can assure you that confidence will always be respected.

We are not looking or asking for applause, because all the applause we need comes from the knowledge of a job well done, or at least we hope it is, but many letters are a source of inspiration and we welcome all of them. It is not the intention to publish these letters, but merely to make them the basis for remarks in an entirely new column, one which it is hoped will draw us a little closer together.

Another new Chapter has been added to the rapidly growing list of Chapters of our Society. This time it is at Windsor, Ontario, where, on December 1st, after a really excellent and enthusiastic meeting in the Prince Edward Hotel, the new Chapter was launched. A strong board of provisional directors was elected and while much work remains to be done, it is quite apparent that this new Chapter has a great future before it. This makes eleven Chapters and we have not finished yet by any means. These lines are being penned immediately following the speech of Captain Anthony Eden before the National Association of Manufacturers in New York City and one remark in Captain Eden's talk impressed us very much. He said, "Self complacency is the worst thing that can befall any nation." We quite agree, and so it is with organizations and associations such as ours. We should believe that we are just commencing our drive to a place in the sun and continue to work not only to consolidate our gains but to make further gains.

This column has repeatedly stated that this can be done only by the co-operation of the membership as a whole and one could hardly look back on the year that is fast closing without the distinct feeling that this has been received.

NEW MEMBERS

Indeed, one could hardly carry on without it and we heartily appreciate it and humbly ask for a continuance of it.

On the whole, this year has been a good one, true, mistakes have been made in our Society as in all others, but they have not been serious and we have a distinct hunch that next year will be even better. That is up to each one of us.

One of the brightest spots in our Society is the Niagara Peninsula Chapter, which was organized last winter. Recently, at a meeting of that Chapter held at the General Brock Hotel in Niagara Falls, fifty-four sat down to the pre-meeting dinner and several others came along for the meeting after. True, they were not all members and we had the pleasure of the attendance of Ray Lowe, Chairman of the Buffalo Chapter of the N.A.C.A., and several of his colleagues, but the fact is that such was the number and one could hardly be present and not feel a glow of pride at the tremendous strides made by this Chapter. If all goes well, the Chapter membership will be increased this year by over 100%, which is a pretty fair accomplishment in any league, and the credit is largely due to the directors of the Chapter, headed by Chairman Harvey Spry and his wonderful band of co-workers. These fellows are really doing a grand job.

Gordon Dingle, a former chairman of the Toronto Chapter, was the guest speaker at the meeting referred to and the attendance was not only a real tribute to him but to the Society as a whole and to the grand work done by the Chapter directors, not excluding that of Louis Palmer, the very capable and energetic Secretary.

Getting back to the formation of the new Windsor Chapter, we had the extreme pleasure of seeing, in the chair at this organization meeting, none other than J. E. Carruthers, formerly well known in connection with the work of the Toronto Chapter in the early days of our Society. Mr. Carruthers is now located in Windsor and will be of decided assistance in the completion of the organization work in that vicinity.

Christmas and a New Year will shortly be upon us and although we have no intention of inflicting upon the members a lot of high sounding platitudes, which may or may not mean anything, we do desire, very simply, to say to each and every member and subscriber a hearty MERRY CHRISTMAS AND A HAPPY NEW YEAR.

New Members

Montreal.

- F. P. Savage, Shaw Schools Ltd., Montreal.
- W. S. Fry, Canada Starch Co., Montreal.
- J. LeM. Carter, McDonald, Currie & Co., Montreal.
- H. A. Ford, Samuel Silver & Co., Montreal.
- R. J. Dustan, W. M. Lowney & Co., Montreal.
- I. C. Wynn, J. Eveleigh & Co., Ltd., Montreal.

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John A. Crosby, 5337 Casgrain Avenue, Montreal.
J. W. Christie, City of Westmount, Westmount, P.Q.
R. N. Harvey, Gaspesia Sulphite Co., Ltd., Chandler, P.Q.

Toronto.

E. N. Vanstone, C.A., The Moore Corporation, Toronto.

Hamilton.

G. S. Fleming, Hamilton Bridge Co., Ltd., Hamilton.
H. J. Muir, C.A., Canadian Westinghouse Co., Ltd., Hamilton.
H. W. Ledden, Addressograph-Multigraph Co., Ltd., Hamilton.
T. Simpson, Crain Printers Ltd., Hamilton.
A. Tedford, Sovereign Potters Ltd., Hamilton.

Niagara Peninsula.

F. E. Poynton, Lightning Fasteners Ltd., St. Catharines.
H. F. Keehl, Lightning Fasteners Ltd., St. Catharines.
H. A. Fox, Jos. Stokes Rubber Co., Ltd., Welland.
R. R. McLachlan, C.P.A., St. Catharines, Ont.
E. Johannsen, Welland House Hotel, St. Catharines.

Literature Received

The Dunlop Company Card Sorting System.

Business Management. November.

A complete and interesting description of a card sorting system in use by the Dunlop Tire Company.

Guarantees in a Factory Pay System.

Business Management. November.

Another excellent article by R. B. Taylor, C.A., describing a system of guaranteed wage payment.

Methods of Computing Costs and Control.

Journal of Accountancy. December.

A very excellent article, from the pen of John F. Forbes, and should be read by all business men.

Costing as an Integral Part of the Accounting System.

Australian Accountant. October.

A most comprehensive and interesting article, by R. F. Rushton, A.I. C.A.

Some Elementary Aspects of Budgetary Control.

Canadian Chartered Accountant. December.

An interesting article of interest to all who either use or contemplate the use of budgetary control. By C. N. Knowles, C.A.

Allocation of Oncosts Between Departments.

The Accountant. November 5th.

A very complete article, describing the allocation of overhead charges as between departments.

Last in First Out Inventory Method.

Journal of Accountancy. November.

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A very fine article on a much-discussed subject, prepared by the American Institute of Accountants' committee on Proposed Changes in Federal Law.

Orchardists' Accounts.

Chartered Accountant in Australia.

A very instructive article on the need for proper accounting among fruit growers.

Cost Estimating for a Trucking Company.

N. A. C. A. November 15th.

A cost study showing how cost estimating is applied in arriving at a contract price in the trucking industry.

Chapter Notes

Montreal Chapter.

(Plant visit to David & Frere, held on Nov. 16th, 1938.)

Approximately forty visitors, including seven ladies, arrived at the above plant between 5.30 and 5.45, and were divided into three visiting parties. These parties were led through the plant, where all processes were explained in detail by employees, and they were much impressed by the variety of the products. The plant was in full operation, as it is approaching its big season, both in biscuits and candies. The tour lasted approximately one hour, after which the entire party was assembled around one of the packing tables in the plant. The management of David & Frere had generously provided refreshments, as well as a large variety of biscuits, celery, olives, etc. This food and drink was greatly enjoyed by everyone present, and after questions and answers, the meeting broke up at approximately 8.30 o'clock.

LECTURE MEETING, DECEMBER 2nd, 1938

Approximately 100 members and friends attended a lecture by Mr. P. W. Wright on the subject "Accounting for Fixed Assets," in the Arts Building, McGill University.

Mr. Wright's address was very informative and, supported by diagrams on the board, was of great interest to those present.

Following his talk, Mr. Wright answered many questions and the meeting adjourned at approximately 10.00 p.m., after a very successful two hours' discussion. The speaker was introduced by Mr. Lorenzo Belanger, and thanked by Mr. D. R. Patton.

Toronto Chapter.

The Toronto Chapter held a meeting on November 23rd, and again the speakers were drawn from the membership. Between forty and fifty members and guests listened to a very instructive talk by H. A. Blanchard on "A Method of Compiling Cost of Sales for Replacement Parts."

The speaker pointed out that they manufacture eight distinct types of equipment and must supply parts for all models of each type, the list

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of parts running to more than 22,000 items. He outlined a system which was working quite satisfactorily, whereby a card was used for each part shipped, with space for the number shipped each day with monthly totals. At the end of each month the total cost of selling is computed and applied to the parts shipped according to the cards on file. In this system, only the cards actually required for parts shipped are in the file, this simplifying the records.

The second speaker was Bruce Taylor, Chairman, on the subject "The Form and Value of Published Financial Statements." Mr. Taylor felt that the information given by the average statement was no more than actually required by law, and brought out that a statement could easily comply with the law, but give very little information to the ordinary shareholder. The speaker also pointed out that it was quite possible to produce two or three different statements for the same period, each showing different results, yet each one capable of being proven accurate and beyond the ability of anyone to question, in which argument there was general agreement.

The next meeting is scheduled to be held on Wednesday, December 14th. On this occasion, Mr. Russell N. McCormick, Assistant Manager of the Traffic Department, Canadian Manufacturers' Association, will speak on "Sales Tax in Canada." This is indeed a subject of niterest to all those engaged in business, and it is hoped, and expected, that the largest attendance of the season will be on hand to hear Mr. McCormack.

Hamilton Chapter.

On Wednesday, November 24th, the Hamilton Chapter staged one of the most enjoyable functions held this season, when about thirty members and guests attended a Plant Visit to the Remington Rand plant, and were conducted on a complete tour through the courtesy of Mr. R. Ballard, General Manager. Following this most enjoyable and informative visit and the dinner at the Wentworth Arms Hotel, about forty-five gathered to hear Mr. A. J. Mouncey, of the Remington Rand Company, speak on "Standardized Costs." Mr. Mouncey's talk is reproduced in this issue, and all that is necessary to say is that Mr. Mouncey gave his hearers plenty to think about, and the discussion was an extremely lively one. At the close, a very hearty vote of thanks was accorded not only Mr. Mouncey, but the management of the company for their kindness in showing us through the plant in a most instructive way.

On December 7th, Mr. J. Clark Ryan of the Colonial Radio Corporation, Buffalo, N.Y., will address the Chapter on the subject of "Micro Motion Analysis."

Niagara Peninsula Chapter.

No Chapter in the Dominion, and there are now eleven of them, is going ahead better than the Niagara Peninsula Chapter, and this was more than exemplified at the meeting held on November 16th at the General Brock Hotel, Niagara Falls, when fifty-four sat down to dinner and more attended the meeting which followed. Major Gordon Dingle, an ex-chairman of the Toronto Chapter, was the guest speaker, and he certainly pleased his hearers with a very fine talk on "The Value of Cost Data to

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Management." His talk is published in this issue, so that no good purpose would be served by elaborating on it here, but it is safe to say that no meeting in years was so full of inspiration as was this meeting. The officers and directors of the Chapter certainly built up this meeting in a manner to be heartily commended, and they mean to keep up the good work.

Among the guests was Mr. Ray Lowe, Chairman of the Buffalo Chapter of the N. A. C. A.; also Mr. H. M. Loree, who recently addressed the Hamilton Chapter, and several other members of the N. A. C. A., and they certainly enjoyed themselves.

Kitchener Chapter.

A good attendance greeted Mr. Rutherford Williamson, F.C.A., of he spoke on "Costing in the Boot and Shoe Industry," and the questions at the close were many and varied. Mr. Williamson's talk was very much Toronto, at the Kitchener Y.M.C.A., on Thursday, November 17th, when enjoyed and he was the recipient of a hearty vote of thanks at the close.

For the December meeting, something new will be tried for the members and friends of this Chapter will enjoy a smoker with dinner and various forms of entertainment, to say nothing of the well known Kitchener products in the way of refreshments. Several Hamilton members have already announced their intention of attending this affair, which gives every promise of being "the goods."

The date is Thursday, December 15th, but the locale had not been definitely decided at the time of going to press.

London Chapter.

London Chapter November meeting was a most successful one in every way. The attendance was good, and the speaker, Professor H. P. Hensel of Western University, was really excellent. Professor Hensel spoke on "The Statistical Control of Business," and it is proposed to publish this talk in "Cost and Management" at a later date. Those present thoroughly enjoyed the talk, and a hearty vote of thanks was accorded the speaker at the close of the meeting.

On Friday, December 16th, members and friends of the Chapter will pay a Plant Visit to John Labatt Limited, at London and, following this visit, the management of Labatt's have very kindly consented to provide dinner for those attending. After dinner, Mr. Hal White of the staff of the company will give a short talk, and then refreshments and cards will be the order of the day. The London members will be reinforced on this occasion by some members of the Hamilton Chapter, and it promises to be the best attended function of any put on by the London Chapter to date.

Windsor Chapter.

The new Windsor Chapter was duly organized on Thursday, December 1st, when the General Secretary of the Society spoke on "What Management expects from the Accountant," and followed this by giving a resume of the work of the Society. It was then unanimously decided to form a Chapter, and a strong and efficient board of directors was elected. Those present were very enthusiastic, and a very bright future is anticipated for this newest Chapter. The next meeting will be held late in January, when

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it is expected that a prominent speaker will be present, and by this time the membership of the Chapter should be greatly increased.

Winnipeg Chapter.

The November meeting of the Winnipeg Chapter was one which will long be remembered in the history of the Chapter, for the speaker was none other than the President of the Society, Mr. Kris A. Mapp, F.C.A. Mr. Mapp addressed about fifty members and guests on the subject of "Some Problems as Between Business and Governments," and his talk was very much enjoyed. Many of the guests present expressed their intention of joining the Society, and one can look for a much increased membership by the time the January meeting is held.

Vancouver Chapter.

On November 14th the members of the Vancouver Chapter held a very interesting and valuable discussion on "Standard Costs," led by Mr. T. E. DeWolfe of the Jantzen Knitting Mills. Following the talk by Mr. DeWolfe, a round-table discussion ensued, and this form of meeting will alternate with a guest speaker. Matters are going along well with this new Chapter, and the members are gaining much valuable information from the various meetings.

The Balancing of Incentive and Security

By RALPH E. FLANDERS

President,

Jones and Lamson Machine Company, Springfield, Vermont;
Former President of the American Society of Mechanical Engineers

An Address Before the Seventh International Management Congress,
At Washington, D.C.

The wording of my topic is set in the most general terms, and no restrictions in treatment were laid upon me. Such breadth of field and freedom from restraint evidently requires self-imposed limitations of some sort, if the subject is to be discussed in any useful way during the short time at our disposal.

The choice between security and incentive is presented in numerous fields and on many scales. This choice has to be made by individuals, by businesses, by industries, by social groups, by nations, by whole civilizations. Nature herself, in the long process of the development of life, has experimented with both principles, offering individual or group security to some species and insecure initiative to others. A consideration of the evolution of living things from this standpoint would be a most interesting undertaking and would be of suggestive value in the study of related human problems; but time and space are lacking for carrying out such a project.

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It is proposed that the field of inquiry be limited to these few relationships: that of the individual or organized worker to industry and to organized society, and that of organized society to the destiny of western civilization. This field is surely broad enough to engage our attention for the half hour assigned to this topic!

In the first place, not incentive alone, with its policies of enterprise and risk, nor security alone, with its attitudes of defense and protection, can be considered as satisfactory conclusions of our inquiry, whether for persons, businesses or government. The taking of too great risks may result in the destruction of the gains of the past. Too great a concentration on security will lead to the wasting away of former achievement and a decay of present advantage. There must needs be a proper balance between incentive and security. Both are necessary. The question before us is to determine what is the proper balance; or, if that be impossible of determination in satisfactory terms, to see as clearly as we can what are the factors which lead toward the determination of the proper balance.

One of the most interesting examples of a difference in attitudes toward this question was plainly to be observed in comparing the American and the continental business organization in the pre-war period. It was then the experience of most of us who were engaged in the manufacture and sale of high production machinery, that the attitude of the European customer toward our product differed fundamentally from that of the American prospect. The European of that time lived in what seemed on the surface to be a settled civilization. The foreman or shop superintendent or managing director had arrived at a certain place in the social scale. Having attained that place in a well ordered civilization, he was more deeply concerned with maintaining it than he was in risking it for the sake of possible future advantage. When confronted with an apparent opportunity for making greater profits by the expenditure of large sums of money, his first and strongest reaction was that the expenditure of those large sums was a dangerous undertaking. While it might prove to be advantageous in the long run, yet again it might not. A single serious mistake would jeopardize his position and cost him his assured place in the social scale. There would probably be no complaint whatever if he did nothing; while there was a large chance of failure and consequent disaster if he took the risk. Under these circumstances, the normal attitude of that day in thousands of business establishments was that of letting well enough alone. Security triumphed over incentive.

In the America of that day, on the other hand, amid the confusion and turmoil of expanding population and expanding industry, the rewards of place, power and income went to those who were willing to take risks. So many men of ability were willing to take risks, and the risk of failure was so far below the 50-50 margin, that those who did take risks as a whole surpassed in the race those who did not. The atmosphere, therefore, was one of incentive.

It is your speaker's observation that a comparison of present-day conditions as between Europe and America reveals much less difference than was apparent twenty-five years ago. The European social structure is not

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so well ordered. The security of the inactive individual is less assured. The obvious rewards of initiative and risk are greater. On the other hand, in this country there has been a tendency to take the mature point of view. With the disappearance of the physical frontier and the leveling off of the population curve, the obvious and automatic incentives to expansion are diminishing.

It is not a part of my purpose this afternoon to explain why I believe that the above factors do not of necessity call for a slowing up in our expansion of activity for the next generation; but the fact remains that they are at the moment effective. They are particularly effective when combined with laws and policies of our federal government which dampen enterprise and exalt security; but of these I will speak more later. The net result is that the heightened spirit of enterprise in Europe and the lowered industrial vitality here tend to bring the two regions more nearly together than at any time within the memory of men now living.

This problem of the proper balancing between incentive and security affects and the relation of the business to its working force in all its ranks, and not simply with relation to those in management. Probably most of us concerned with management have come to the conclusion that there are two broad categories of employees. One is the routine worker whose principal desire is for steady work at good pay. The other type, much smaller in numbers, is spurred by initiative and desirous of assuming responsibility and of expanding his responsibility to the limit of his powers.

These two classes, considered in their broad human aspects, do not constitute an inferior and a superior class. Both are necessary to industry. If all of us were in one or the other, industry could not survive. Especially should it be remembered that the larger group which looks primarily for security in industry is not the inferior class of the two. In mental equipment, in moral sensibilities, in capacity for the highest satisfactions of life, there will be found at least as many superior individuals among those looking for security as among those spurred by incentive. Industrial management and responsibility is, after all, a highly specialized form of human activity. Those who are fitted for it are not thereby picked out as being superior human beings. They are simply better adapted to a specialized range of human activities. Let us not make the mistake of concluding that excellence in our particular field means corresponding excellence in the general scale of human character.

A practical management problem arises in determining the amount and kind of incentive to offer this group which constitutes the larger portion of the employees of the individual business. There are limits to the money incentive which can be applied from the purely mathematical standpoint of cost per operation, per piece, or per pound. The limits in desirable income stimulation, in fact, fall well below this mathematical maximum. Any wage incentive which keeps this group unduly stirred up, whether by unnatural physical or mental effort on the one hand, or by fear as to the security of the wage arrangements on the other, is bad management in the long run, whatever the short term effects may be. It is important for these workers that their connection with industry shall be such as to lead

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to tranquility of mind and self-respect in their position, whether at work or at leisure.

But, while there are limits to the monetary incentive, there are no limits to the intangible incentives which may be offered. The greatest available security of employment and of wage income, both as determined by private business policy and by the stabilization of our economy, are requisites for satisfaction in life to the great body of our fellow citizens in industry. Those who have lacked opportunity to become acquainted with the workman for whom these conditions have in some measure been provided, will never understand the prideful relationship between the worker and his work which exists among them. The expansion of the conditions in individual business and in our company as a whole which make this relationship possible will add immeasurably to the general happiness of the nation.

The smaller group is one endowed with initiative and a willingness to take on responsibility; and from this smaller group the ranks of industry leadership are recruited. Such leadership is at its best when, either as viewed individually or as a class, it renounces complete security for itself, but is deeply concerned with security for those in its charge. If that leadership is wise, its own initiative will be tempered by cool judgment and by experience; but yet it will always find itself functioning in accordance with a temperament which reaches out for anything which is unknown and untried, provided it be rationally hopeful. Unless there is enough of this latter element in its mixture of qualities, the interests of those led and of society as a whole will not be best served.

The individual positions of the old-fashioned capitalist group continue to become less and less secure as time goes on. In this country, at least, the heavy incidence of estate taxes and the continued multiplication of the number of stockholders in a given enterprise tend year by year to take the management of our productive wealth out of the category of inherited wealth and put it into a separate management class. We may almost say that the day of the capitalist has passed. Ownership is no longer as a rule vested in powerful individuals. Ownership is continuously more subdivided and fractionated. The opportunities of management are increasingly more and more open to those who can only gain them by other means than by inheritance. This condition is true, even though it is possible to point to remaining individual capitalists of the old type. Their number and their importance diminishes yearly. The new profession of non-owning management grows in importance. The means by which high position in management is obtained does not, of course, always assure the best possible men for the work; but the standard is surprisingly high, and there seems to be no doubt as to the desirability of the existing management class as compared with inherited managership as we have witnessed it in its decline. Again, of course, we are speaking in broad, general terms, bearing in mind many brilliant exceptions to the general rule.

It would not be proper to leave this topic without calling attention to a third type of fellow human being—the person who has willingness and even anxiety to accept responsibility, but is unequipped by nature to

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take it on. Such individuals offer a difficult problem, not only to management, but to themselves. Sometimes they are persons of ability who have mistaken the nature of those abilities, in which case the remedy lies in redirecting their ambitions and energies. Here it is evident that the bare application of incentive is of little avail. The great need is for analysis and re-direction.

The labor union occupies another sphere in which choice has to be made between security and incentive. In some industries the emphasis has been so strongly on security that wage rates and working conditions have been set at a level which decreases the volume of work which is available to that industry at prevailing costs. The result is that those who have work under these conditions fare far better than in the past, but, meanwhile, many of their fellows are needlessly unemployed and the whole business machinery runs at an unnecessarily low rate of output, employment, and total pay rolls. Thus, the whole country falls below the general standard of living of which it is capable.

This represents an extreme of labor union policy which, in its normal and socially needed function, is altogether helpful. That necessary function relates to the correction of the evil situation found in industries in which the competition between business organizations is primarily on the matter of wages, thus tending to grind them down to the lowest possible limit. The solution lies in reversing that process by labor union activity and replacing it by competition in equipment and management whereby high wages can be paid, low prices maintained, the general purchasing power increased, and the standard of living raised.

So far as the industries themselves are concerned, they are seeking a false basis of security for themselves in driving wages down and, in addition, they set up thereby destructive forces in the whole fabric of society. The remedy lies in the direction of greater risk in investment and a consequent insecurity in first appearance. But, in the end this provides for the business, for society, and also for the employees far greater security than can ever be obtained by the more reactionary policy.

We must be careful to remember the fact, however, that undesirable labor union policies are but a reflection of a corresponding policy which has been attempted over and over again in by management industry. Individual businesses who fancied that they were strong enough to do so, either by their temporary dominance of the market or by patent protection or other real or imaginary advantage, have endeavored to capitalize on that advantage by raising the price of the product and trying to get an unduly large profit. Such an attempt at gaining financial security is seldom successful in the long run, even when made by strong groups of manufacturers instead of by individual companies. There is in high profits a strong stimulant to opposing enterprise. Small new firms dig into the market. New inventions and devices come to light which parallel the older ones and injure their monopoly value. Sometimes completely new products are devised which blanket the wind from the sails of the going enterprise, and cause it to fall behind in the race.

This is particularly the case when an old industry endeavors to pro-

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tect itself. Human ingenuity is limitless, and the endeavor to secure monopoly seldom fails to produce competition of unexpected strength and novelty. In the long run, the industry which seeks to secure its position by monopoly and raised prices finds itself at a disadvantage as compared with those industries which work on a lesser margin of profit but depend on energy, good service, and moderate price for their safety.

The best solution, so far as concerns the general prosperity of a country and its standard of living, is thus the same for organized labor or organized industry. The proper balance between security and incentive must be maintained.

What has been said as to the balance of elements between individuals and business organizations, and as between business organizations with each other, applies with full force to the relationship between the individual and organized society. But here we meet with some additional elements of very great importance. One point relates not only to the continuously recurring question as to the proper amount of emphasis to be put on incentive and security, but raises the further question as to the types of experience and activity to which each should be predominantly applied.

Upon examining the course of the history of our civilization, we are faced with a paradox. The succeeding centuries of its development, seen in one aspect, appear to provide greater and greater security as time goes on. In another aspect the history of the western world seems to be a progress toward more and more delicate balance and greater insecurity.

If we examine the structure of our society, we will discover that the growth in security relates mostly to material things. Civilized nations are less and less subject to famine as the generations pass by. Greater output per acre and per man, crops somewhat less dependent on the weather than in times past due to irrigation and improved methods of cultivation, the elimination of a large percentage of disease and death, and even of accident by improved hygiene, medicine, surgery and safety practices—all these represent consistent gains in security.

The increasing delicacy of economic balance is likewise plainly evident; so evident indeed as to be appalling. This is due to a number of causes, among which are the following:

- (1) Present-day restrictions on freedom of trade between sovereign countries have restricted the flow of commodities from regions of plenty to regions of dearth, so that local depressions are less easily compensated for.

- (2) Our money has of necessity shifted from a gold to a credit basis, and in so doing has become dependent for its volume and velocity of circulation on psychological factors which are difficult of control. "Business confidence" cannot be made to order.

- (3) The spread of popular education has done its part. Hundreds of thousands and even millions of people are following the business indices who twenty years ago did not even know that they existed. Their purchases are going up and down with the stock market. They no longer act like the classical "economic man."

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(4) As the standard of living is raised, a larger and larger percent of the expenditures of the mass of the population goes for goods whose purchase can be postponed. Not only **can** the purchases be postponed, but they **are** postponed, and billions of idle dollars are on occasion hoarded in our banking system that would be in active circulation if the holders of these funds were under any necessity for spending them.

(5) The very temper of our civilization is that of tension; and the hair-trigger temperament that goes with our life plays its part in the sudden and unpredictable movements in mass psychology which affect all of the preceding elements.

Truly, we live in a delicately balanced society; or perhaps we had better say, in a society perpetually unbalanced and endeavoring, sometimes unsuccessfully, to maintain its equilibrium.

If we look for a material analogy to this social situation, we find it in the progress of science and engineering. We may, for instance, examine the development of the means of transportation and find it at once becoming more perilous in its possibilities, while at the same time, it becomes ever more safe so far as concerns the actual number of disasters. When man made his way only on his own feet, he was free from innumerable possibilities of accident that went with later modes of travel. Yet the broken leg or other similar accidents must have been of frequent occurrence. When he took to riding on horseback instead of traveling by foot, the number of kinds of possible accidents greatly increased; yet if statistics had been available, it might have been found that there were fewer accidents per horse mile than there were pre man mile for the pedestrian.

Perils were tremendously increased with the advent of the railroad. The automobile still further increased them. In fact, our speed and the traffic conditions with which we have to contend, if viewed by any one seeing them for the first time, would seem to be a wholesale invitation for wholesale slaughter. The accident rate is far too high. It is marvelously low when we consider the possibilities for trouble inherent in the situation. And that low rate is at last beginning to turn lower yet as the driving population becomes more and more skilled in the handling of the car and more and more imbued, by social pressure, with the necessity for carefulness.

The automobile, or the older railroad train, is by no means the most recent development in combined insecurity and safety. Travel by airplane is, of all imaginable things, the most insecure and the most subject to sudden death and destruction. Yet the figures for accidents per passenger mile on regular commercial flights are astonishingly low—incredibly low. Here we have the combined counterbalancing effect of mechanical improvements and human organization in rendering reasonably safe a means of transportation which, exhibited for the first time, would appeal only to the foolhardy and the reckless.

May we not take some hope in this mechanical analogy and feel that the increasing instability of our society does not debar us from making it increasingly safe by corresponding improvements? Those who refuse to consider these possibilities are fond of saying that you can't go against

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natural law. This we cheerfully admit; but within the realm of natural law innumerable novelties have been devised and innumerable successful devices have resulted from the trial of those novelties. This does not mean that in the social field we can safely trust to haphazard experiments. The risks are too great, and a single disaster may have appalling results. It does mean that the application of the same kind of analysis and design to social problems that is applied to the solving of the engineering problems of the airplane may produce comparable results. It may not be hopeless to look for the application of social devices which will prove as effective in promoting the normal operation of our social mechanism as was the simple expedient of giving a dihedral angle to the wings of an airplane in giving a needed degree of inherent stability to the craft when it is in flight. So much for the possibility of the existence side by side of growing instability and increasing security. Let us next ask ourselves over what areas of our social existence should security be applied, and what areas should we leave to the influence of incentives?

As one suggested answer to this question, may we not make a division in accordance with the age of the individuals who make up the great body of our fellow citizens? It is within the physical capacity of our civilization, either operated as a whole or in groups or units in part self-sustained, to provide for the population the following kinds of security:

For youth, we seek preparation for life's work and the broadest range of opportunity that it is possible to provide. Nature does not provide equality of gifts and abilities. No social organization has as yet successfully provided equality of income or equality of ownership, unless it be on the basis of a very low standard of living. What we can hold before ourselves as the ideal for youth is the nearest possible approach to equality of opportunity. This is a right possessed by the individual in a democracy. It is more than a right. It is a necessity for the perpetuation of democracy, if democracy is to be perpetuated and if society is to move on to higher service for the individuals who compose it. We cannot afford to allow any talents to go unused and undeveloped. We cannot permit any abilities to lie undiscovered. We must prepare for an era of great expansion of education, not in its mere bulk so much as in the development of new kinds of education to fit more kinds of people in all kinds of situations.

We are, moreover, faced with an emergency which requires that we act now in this matter. With the present varieties and distribution of education, the great majority of students do not carry their schooling beyond the grades. Of the remainder, the majority get through our present high school courses with difficulty. In the meantime, the age at which the boy or girl may go to work has been raised to sixteen years and present tendencies will bring that minimum age before long to eighteen years or even older. These empty, unoccupied years at the critical period in the life of the boy or girl constitute a serious menace, not only to the character development and future of the individual, but as well to the state and nation of which he or she will become an effective ruling element under our form of government. This educational problem must become a matter of first importance to us. The youth must be secure in preparation.

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At the other extreme of the life span, we have entered a new period of responsibility for old age. It has become a part of our social purpose to see to it that those who have worked faithfully during their years of strength shall, during their years of retirement, be assured of adequate food, clothing, and shelter. This minimum responsibility society is sharing as an obligation with the individual. In so doing, we will relieve the middle years of unjustifiable worry for the future leaving them free to be devoted to the productive occupations by which the programs for youth and old age will be sustained. Age following a productive maturity deserves security.

We have made real progress in these last few years in defining and accepting our social obligations to youth and age. We have failed in developing the policies and institutions, and even the proper mental attitudes, required for such a direction of the productive years of men and women as will make it possible to support these new obligations for youth and age. It is in the reviving and freeing of the effort of the working years that our nation finds its duty and its opportunity.

It is in the middle years that the full force of incentive must be provided and applied. Some security for unemployment, accident, and illness must be provided. But the whole atmosphere of maturity must be that of production, self-support, and the support of society as a whole. But even here, as we have seen earlier in analyzing the different types of workers, the full stress of incentive cannot properly be applied to every individual in the middle years. Personal responsibility for personal well-being must be made possible and emphasized. But the full force of incentive must be left to fall on those who are to lead and direct the needed expansion of our productivity.

Speaking for this country alone, it is the conviction of your speaker that the spirit of enterprise and the response to incentive has been greatly diminished in industrial and mercantile leadership in the period since 1929. This spirit did not revive with anything like its old vigor even during the relatively prosperous year of 1937. Many reasons can be and have been offered for this condition.

The physical frontier has disappeared; the population curve is flattening out; and automatic, irresistible stimuli to business expansion are no longer available. These facts, more or less clearly realized, have perhaps tended to produce a state of pessimism in the minds of American business men. If so, it is a quite unnecessary condition. The physical resources, technical progress, and numbers of our population permit of a great expansion in the standard of living and will require a great expansion in industry to meet it; and it is on this possibility that we must fix our minds. We cannot examine the possibilities too often or point them out too insistently.

The other group of deterrents to a revival of initiative has come from government. On the one hand the partial point of view of the social worker whose mind is fixed on security alone. On the other is the politician who finds the easy road to maintenance of power that of the promise of security. **Security is a much easier thing to provide on a temporary and spectacular basis than is the much more fundamental achievement of a raised standard of living.**

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What we have to learn is that **there is no long-time security without incentive and initiative.** For a continuance of achievement in our western civilization we must strike a balance between the two policies. We are like an army with new territory ahead of us. If it is unwise to extend the front line too rapidly lest our communications be cut off from the rear and our army destroyed, it is equally unwise to go into a permanently fortified encampment in our present location. **This is not a good place to stop.**

In view of the physical, technical, and human possibilities ahead of us, it is a primary duty of government to bring about within the governmental field the conditions which foster a revival of initiative and enterprise. Our present need is not alone for security, but for incentive. On the return to incentive hinges the success of our whole effort to attain a possible and desirable advance in the security of the whole mass of our fellow citizens.

Standardized Costs

By A. J. MOUNCEY
Remington-Rand Ltd.

An Address Before Hamilton Chapter Nov. 23rd, 1938

Those of you who did us the honour of visiting the plant this afternoon will readily believe me when I tell you that, in the manufacture of a Remington No. 10 Noiseless Typewriter there are 1,140 different parts, or a total of over 3,500 pieces.

As in almost all products, it is not economical to manufacture all of these parts completely, so some of the small elements are purchased finished, others are purchased semi finished and finished in the plant, and still others are manufactured completely from the raw material or raw castings.

To complete a Remington Typewriter, we find a great diversity of labor content. There is the case of an automatic screw machine product, manufactured at the rate of one every 1.75 seconds, with one man taking care of several machines. Therefore, this 1.75 seconds must be divided by the number of machines operated. The material cost is .0081 per 100 pieces, and to go from the ridiculous to the sublime, we have other parts, such as the Carriage Ends, on which there are 38 operations and which pass through 7 different departments before they arrive in finished stores, which is the haven for all parts, whether purchased finished or finished in the course of manufacture. By "finished" I mean really finished, as all parts going into the manufacture of a Remington are protected from all kinds of climatic conditions by a heavy deposit of Nickel or Nickel and Chrome or Oxidized Copper, others are Nickeled and Japanned or rubber coated and Japanned and Krinkle finished.

From finished stores, these parts are issued in lots of complete units for sub-assembly. Take, for example, the Carriage. This is composed of many parts, which, when the work has passed through the many operations,

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have all been assembled, and the complete assembly is then ready to go into the assembly line at its proper position. There are approximately 41 sub-assemblies which must be ready in advance to step into the assembly line at the proper spot in order to avoid hold-up.

The assembly line proper, with our present production, consists of 16 operators, on which are spaced three inspecting stations, whose duty it is to check all operations previous to their station, and return for correction the slightest fault. Then, at the end of this assembly line, the machine is aligned, then inspected once more, this time for mechanical perfection, the alignment is then inspected and the outside trimmings are put on. A typist next inspects the machine for defects in typing and touch, and makes a very rigid general office inspection. It is then handed over to the final mechanical inspector, who again gives the machine a thorough going-over, then to the final aligning inspector. A young lady then writes two samples, one of which stays at the plant and the other goes out with the machine. After another independent inspection, the machine is ready for shipping to Hamilton, or Sydney, Australia.

Material.

There is no need to stress in any way the part material can play in sending costs off standard. Therefore, all material and parts coming in are inspected, and when material is requisitioned on the factory order for a given part we already know with mathematical accuracy how much will be required for the quantity of pieces on the order. Thus, the stock is definitely controlled. There is such a thing as scrap, unfortunately. If it is caused from faulty material, such as hard castings or stock not up to specification, the scrap is returned through the inspection department and raw stores to the manufacturer for credit. If, however, the scrap is caused in process of manufacture, this scrap must go through the hands of the inspection department (usually caught by the field inspector) and they decide if it is feasible to re-work. If so, the re-work is charged to overhead under reclamation work. If it must be scrapped, a scrap ticket is made out in triplicate by the inspection department, one copy is filed and two go to the time-keeper, who posts on his record and signs as posted, then gives one copy to the production office, where it is recorded on the Kardex, and the other copy to the Cost department for Cost and Schedule Ledger.

If scrap applies to faulty raw material on which work has been done, we then scrap labour and overhead only, and, as before, material is returned to the manufacturer for credit.

Thus, by dead accuracy in issue from stores and rigid inspection in the field and department, we can obtain a control or standardization of material cost.

Labour.

This is where the Industrial Engineer (the fellow who comes in at the tail-end of our Society's name) comes into his own. In the past, I often wondered why the Society allows these fellows to associate with the salt of the earth—the Cost Accountant—for, if you knew half of the names they are called, you might even bar them from your golf tournaments. How-

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ever, in all seriousness, something has to be done about labour. I have heard it said, by men who really think it: "I do all I can on day work. I work as hard now as I possibly can on any incentive plan." I believe fully that they are making, to their best knowledge, a true statement, only I know it is not correct, at least I have never found it so.

Therefore, to get the most for the money invested and expended to make it possible for the operator to work, we must first study the job to find the most economical method of handling it consistent with first class product. The methods to be studied and corrected are: operation, jigs and fixtures and tools, feeds and speeds of machines, coolants and lubricants, methods of handling parts in sequence to avoid handling waste.

Once this is done, we can go scientifically to arrive at an incentive plan of remuneration for labour. The method to be applied depends largely on the job being studied—but it must be couched in terms to obtain results that can be readily assimilated by the Cost department and bear directly on the prime factor of standardization of costs.

With this in mind, the handiest method which can be applied in most cases is a straight piece-work rate. I am not defending this method as the most efficient wage incentive, but, all things considered, it lends itself readily to any cost system, and so far as labour is concerned, is very satisfactory, as before an operator starts a job, he or she knows what is expected and what the job pays.

There are jobs such as Automatic Screw Machine Department, Plating Department, etc., that do not lend themselves at all to straight piece-work and must be handled differently on an allowed hour basis. These, however, must be put in such shape that the information supplied to the Cost department shows definitely the labour cost of each item.

We find it advisable, even in certain cases, to give indirect labour a wage incentive, but this is not primarily for cost purposes, but rather to satisfy the workmen and work out economies for the company.

Records.

The method of handling payroll is by a daily time card, which is handled by the timekeeper and payroll department daily, and, of course, has the usual information that all time cards have: shapes change, like ladies' hats, but the information remains essentially the same.

It may be interesting to note that from the time the raw material leaves the Raw Stores, it is accompanied by an order showing order number, part number, name, quantity, and each operation and number in sequence which must be performed on the part, as well as the department in which it is done. Accompanying this is a Quantity Slip, on which is noted the quantity transferred on to the next job. This agrees with the time card record, and thus we do not pay for any more work than is done. We have already mentioned how scrap is taken care of. This is also posted on the Quantity Sheet, as well as Cost and Schedule. There are other uses for this record from the production standpoint, especially to the chasers, who can readily follow-up parts, but that is outside the cost viewpoint.

The payroll thus assembled, with all its checks and checking is much

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the same as yours. We have the same troubles and the same pride in our results.

We pass over the original books of entry also, for there is certainly nothing new to you gentlemen who handle the same detail every day, but I would like to dwell a moment or so on the Cost and Schedule Ledger, to which I have already referred. In this record we assemble all the information regarding parts in process. This includes a subsidiary ledger of what we call components, which are the component parts that make up our sub-assemblies, which have already been mentioned. Into this record, then, is posted, from the time cards, the quantity and cost of all parts by part number and operation. The material is posted direct from the stores issue slip, the scrap, re-work, etc., have already been mentioned. Thus, we have a detail cost by individual parts by individual orders, which, while its chief purposes are as a detail control of In Process Account, and a figure for inventory purposes, is invaluable as a constant and immediate guide to any serious deviation from our standardized costs, and also indicates immediately any operation which apparently is running over in quantity in time for investigation.

Burden or Overhead.

This is where many well-intentioned costs can, and do, go haywire. Theoretically, the method is to budget your expenses by departments and stay with it—but we have not as yet reached the Accountant's Utopia, where things will always run smoothly on overhead. However, machines, drills, taps, expensive tools, waiting time, and what-not, will crop up beyond our expectations to upset what we call the "controllable overhead." This overhead, here, is allocated by "product," but no attempt is made to allocate by machine or floor space, as the end does not, at present, justify the means. This is rather annoying at times to some of us who would like to show a nice saving by changing things about and cannot show how much the saving is by having the operation done on a cheaper machine. But then again, it may be a blessing, for who can deny our figures if we pick a nice, juicy figure out of the air and really go to town?

Let us leave this unpleasant topic with the thought that we are going after it with the idea of standardizing even the so-called controllable overhead.

The methods used to bring all these records into our twenty-four financial statements are, naturally, a long story, and with your permission we will leave it open for questions if you are interested.

The Value of Cost Data to Management

An Address Before the Niagara Peninsula Chapter, Nov. 16th, 1938

By G. R. M. DINGLE

Comptroller, Massey-Harris Co. Ltd., Toronto

I have been asked to address you on the subject "The Value of Cost Data to Management."

Many years ago the subject of "Cost" did not enter the picture of business to the same extent as now, for the reason that:

(1) A proprietor of a business was, in many cases, the financier, sales manager, manufacturing manager, engineer, as well as Cost Accountant, and he knew to his satisfaction what was going on around him.

(2) Many businesses were simple in organization, and this proprietor knew all phases, especially "Cost," which was so low in comparison to selling price that there was little or no worry over margin.

(3) Competition was not nearly as keen as it is to-day.

For these reasons, "rule of thumb" methods predominated, and very little time or expense was occasioned in business to find the cost of an article.

Business is different to-day. The evolution of the last 50 years in business organizations and expansion has brought with it scientific methods of sales—engineering, finance, and particularly manufacturing, to such a marked degree that it becomes necessary to employ highly intelligent experts in Cost Departments to ascertain true cost of every article manufactured and sold.

Any business which does not do so must still have a monopoly of the business in its particular line of product, or else it will surely not last long in to-day's business "set-up."

There is another important point about the organization of a business to-day, which must not be lost sight of if success is to result from its activities, and that is the type of man in the saddle charged with the responsibility of management.

There was a time when it was considered that management must necessarily be "sales minded," and, in other instances, it was found that a man strong in manufacturing knowledge was required, and so on.

To-day, management must carry a balanced judgement as never before, and this can only come from one who has a keen sense of value, born of common horse-sense and a fairly good accounting mind. He must understand the trends and figures, not only of his own business in particular, but the industry in which he is operating, and general business as well.

We shall take it, then, that we are the Cost Accountant of such a business where we have sound management which gives leadership in every phase of the enterprise.

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What, Then, Are Our Duties As Cost Men?

(1) To keep true cost records in such shape that comparisons can be made from job to job, or month to month, or year to year, as and when required.

(2) Our breakdown of cost must be such that at least the Material—direct and indirect labour and burden—can be determined at a glance.

(3) Our figures should be tied in with the general books.

(4) A wage analysis should be provided to account for all labour consumed and other various headings, particularly non-productive labour items segregated to classes for control by factory superintendent and foremen.

(5) An overhead statement, showing the items and total as actually existent, compared with the normal overhead agreed to be used by the management.

(6) (And this preferably): The selling price—cost and mark-up on each product for a period to show comparisons from time to time when either selling price or cost is altered.

The question will, no doubt, arise: Why do we want all this?

Well, now, first of all, Dun's & Bradstreets report that most of the failures result from incompetence of one kind or another on the part of those who fail, and ignorance of the true cost of production is one of the most common. We do not want to be charged with any such incompetence, so we keep the records I have set out.

I am assuming that our Cost system is accurate—that it fits the industry and particularly the plant and set-up we operate under.

The Use of the Information Provided.

A good Cost Department, properly headed up, can be one of the most helpful units of any Company, providing the information collected there is properly transmitted to those in charge and in good time. There is no use locking the stable after the horse is gone.

Therefore, estimates must be furnished to the management concerning the cost of manufacturing new products—and this must be done before any selling prices are set.

Estimating of cost must be as accurate as possible, so, from experience we find a practical man who is figure-minded, is most useful on this work. When an estimate of labour is required from the mechanical department, such a man is useful to check up such an estimate. He knows whether it is in line or not. He is also in a position to check kinds of material used, as well as design which is, in many cases, most useful.

One of my such men works in the engineering department, right along-side of the draughtsmen, and he brings to the attention of the chief engineer any advice or cost data he compiles—this is in order to frustrate any chance of an article being designed which, at the finish, may be out of line with the possible selling price deemed to derive a certain margin of profit. It is conceivable that a product of the engineers, who may not be "cost-minded" might be a way off in "cost" if each part and operation is not watched from the cost angle.

Here you will see where cost is being controlled before it has a chance to do the business harm.

VALUE OF COST DATA TO MANAGEMENT

New Costs.

Before a new product is to be produced the sales department must indicate the prospective quantities to be sold in the next five years.

I have already indicated that a cost estimate is compiled.

An estimate of the toolage is made and, after selling price has been decided upon, it is an easy matter to ascertain where you get off at with the new product. It is, or should be, an easy matter for the management to decide whether or not the article should be added to the line.

The next job is to get it into production and figure an actual cost from production experience. When this has been completed, the actual cost is compared with the previous estimated cost and any difference run down and explained away. Differences of this kind are often disappointments in margin of profit and the management is not being properly guided if low estimates are turned into high costs which cause margin on sales prices to be reduced.

From the foregoing remarks, you can see where a properly-run Cost department can go a long way to provide the management with proper information to show whether or not margins of profit are being maintained, as well as to show the factory departments what it costs to operate. Proper cost records also provide the basis for cost research, which is sometimes carried on by the Cost department or the chief engineer or factory superintendent. This study is carried on where a cost as reported does not provide the necessary margin the selling price to make the article a profitable line with a final decision on the part of management to continue or discontinue and re-design something else. Some firms use a Cost Research Committee to make recommendations and assist the management to make these decisions.

My remarks have been directed from the standpoint that the Cost information is reviewed by the management when it is fresh. At the time a new cost is completed, the comparison with estimates or previous costs—selling prices and margins, should immediately be brought to the attention of those in charge. If it is thought important enough, the management will no doubt discuss with the sales department, in order to decide on whether a change in selling price is necessary. It may be that selling prices are more or less fixed by competition, and if the discrepancy between the former estimate and the actual cost is very important, it might mean the discontinuance of the product as designed. In some instances, this might be a serious matter, as it may be that the success of the business depends upon the realization of a good margin in the newly developed product, and with an adverse picture shown, delay is caused, and the business receives a serious set-back. Poor estimating has caused many heart-aches to managements, and they can't occur very often if the estimator is to hold his job and the business live.

The very organization of the Cost department, its personnel and the type of mind directing it are most important to management and the decisions it makes. The cost data must not be flavoured to suit the factory or engineering department. Facts only can be included in costs. Therefore, it is usual for a Cost department to head up to the comptroller of a business, so that absolutely unbiased opinion is back of the figures. If

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a Cost department and the data compiled does not act in this capacity, there are plenty of chances of management being misled in making decisions. Every feature of cost which is appearing to be changing should come before the comptroller for decision as to who should be informed so that necessary steps to rectify a bad condition can be taken before it is too late. Only in this way, the exercise of an unbiased mind can the best results be obtained.

The Cost department, in many instances, has information before any other unit of the business, and they are the people to show up the danger signals before the storms break. Management is then in a position to take the necessary action. Take a chance in material prices not reported by the purchasing agent; this may be picked up soon after by the Cost department, and, if reported, may lead to substitutions being made at a saving in cost. I have already referred to the possibility of controlling engineering and design errors, or misjudgment which lead to higher costs. All such matters are reflected in cost, and as long as the information is based upon fact it should be pointed out to those interested.

Reports from the Cost department on ratios of indirect labour to direct labour and expense elements in relation to direct labour are most important. They should be reviewed by the Cost man, and his remarks attached so that the management can see at a glance anything which may be wrong. Never send a statement to any executive in your business without a review of the high-lights being attached. An executive should not be left to his own resources to analyse any piece of cost data or information, in my opinion. He may miss the most important flaw if it is not pointed out to him in a concise manner.

Scrap reports are important in any factory. These should be accompanied by a salvage report, if possible. If a high expense due to scrap is being experienced, you should ascertain the cause. It may be labour turnover—a good man let out due to a personal grievance on the part of a foreman—(poor judgment on his part).

A good Cost man will be continually on the alert to point out changes in ratios and matters out of line with established yardsticks or practices. With this should come the necessary investigation to bring about the adjustment for good within the business—such things as: The preponderance in production of any one line being above average, or the introduction of new lines or the addition to this line of an article for which there is a preponderance of purchased parts out of line with the usual procedure to manufacture most of the material items, will cause the plant figures to show up adversely or too good. This should all be pointed out to those in charge.

In other words, gentlemen, the value of Cost data to the management is only realized upon, if it is intelligently organized and commented upon to the management through the comptroller, plant superintendent, chief engineer, purchasing agent, or anyone to whom the information in the best interests of the business is useful in carrying on his activities.

National Housing Loans

The Honourable Charles A. Dunning, Minister of Finance, recently released figures showing the number of National Housing Act loans approved during November, 193 per cent. above approvals for the same month last year, and in amount loaned 37 per cent. above approvals for October, 1938, and 172 per cent. above November, 1937.

Number of loans approved, 316, was again higher than for any previous month since operations began, in 1935, surpassing October, 1938, previous high month, by nine loans. The total amount of loans approved was \$1,739,865, and was greater than for any previous month, excepting June, 1938, the very peak of the building season, when loans approved amounted to \$2,096,713. These loans during November provided housing accommodation for 507 families. Taking into account the seasonal falling off usually prevailing at this time of the year, November totals offer spectacular evidence of the increasing effectiveness of the new provisions of the Dominion's housing legislation which came into operation at the beginning of August. In the four months since the National Housing Act came into force loans are up 97 per cent. in amount loaned, and 123 per cent. in number of family housing units financed, compared with the same four months of 1937.

An additional forty 90 per cent. loans on low-cost homes valued at \$2,500 or less were approved during the month, bringing the total number of such loans to 82. Under the guarantee for loans in the smaller and more remote areas, and in special districts of the larger centres, 141 loans were approved during the month, bringing the total in this classification to 400.

New communities continue to be opened to the benefits of the lending facilities provided under the Act. During November, loans were approved in 34 new municipalities, bringing the total number of communities so serviced to 285. Since the provisions of the National Housing Act became effective in August, 91 new municipalities have been added to the list of communities in which the lending institutions are making loans.

Of the 507 family housing units financed during November, 81, or 15.9 per cent. were financed by loans of \$2,500 or less; 241, or 47.4 per cent., were financed by loans of \$3,000 or less; and 358, or 70.6 per cent., were financed by loans of \$3,500 or less. The average loan for the month is \$3,432, and the average of all loans made to date now stands at \$3,914.

The total amount of loans made under the Dominion's housing legislation now exceeds \$26,400,000, and total housing units financed number 6,755.

The following table shows the number of family housing units financed, and the total amount of loans made up to November 30th, 1938, classified by provinces:

	Units	Amount
Prince Edward Island	15	\$ 80,034
Nova Scotia	426	1,809,578

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New Brunswick	118	505,117
Quebec	1,530	6,843,901
Ontario	3,272	12,544,622
Manitoba	209	876,383
Saskatchewan	7	25,000
Alberta		
British Columbia	1,178	3,751,993
	6,755	\$26,436,628

Home Improvement Loans

The Honourable Charles A. Dunning, Minister of Finance, recently released figures showing Home Improvement Loans numbering 3,088, and amounting to \$1,201,957.99, reported to the Department of Finance during November. This brings the total number of loans to 58,908 and the amount to \$23,521,504.50 as at November 30th, 1938.

Of particular interest is the increase of approximately six per cent. in both number of loans and amount of loans in the last three months as compared with the corresponding period of 1937.

In Ontario an increase during November of 1,749 loans and of \$670,147.68 in amount of loans brings the total for that province to over eleven million dollars. Quebec, with an increase of 391 loans for \$201,493.09, shows a total of 8,934 loans for \$4,495,814.95. Alberta again holds third place in amount of loans for the month, British Columbia coming third, however, in number of loans.

Total Home Improvement Loans reported to November 30, 1938, and divided according to provinces are as follows:

	Nov. 1, 1936 to Oct. 31, 1938		Nov. 1-30, 1938		Total	
Prince Edward Island	568	\$ 152,040.68	22	\$ 4,061.08	590	\$ 156,101.76
Nova Scotia	4,464	1,352,958.16	181	55,978.61	4,645	1,408,936.77
New Brunswick	2,217	744,389.67	73	23,490.81	2,290	767,880.48
Quebec	8,543	4,294,321.86	391	201,493.09	8,934	4,495,814.95
Ontario	25,161	10,330,951.18	1,749	670,147.68	26,910	11,001,098.86
Manitoba	3,493	1,336,791.50	190	80,714.50	3,683	1,417,506.00
Saskatchewan	1,217	414,970.26	36	12,170.44	1,253	427,140.70
Alberta	4,190	1,819,104.60	217	86,732.30	4,407	1,905,836.90
British Columbia	5,967	1,874,018.60	229	67,169.48	6,196	1,941,188.08
	55,820	\$22,319,546.51	3,088	\$1,201,957.99	58,908	\$23,521,504.50

Partners' Plan in Shoe Factory

(Reprinted from Manufacturing and Industrial Engineering)

One of only two known to utilize such methods of a management-employee agreement, the McHale and Scott shoe plant at London, Ont., has for the past three months successively worked under a co-operative plan. Workers share profits with the management.

"It is not a fraternal idea, but strictly a business proposition," said J. J. McHale, "and it is so simple that there is no reason why it could not be applied to nearly any line of business where seasonal trade enters the industry.

"The plan was conceived with the idea of stabilizing conditions of workers in seasonal trades upon the assumption that it is better to make a decent living wage 52 weeks a year than to make big money for a few weeks and then coast through on part time and little money, or lay off altogether for many weeks in the off season."

Briefly, the plan at the McHale and Scott plant is to give employees drawing accounts which are charged against a labor reserve. This means that with production running normally a percentage of plant earnings is turned back into this reserve, and operating on a 45-hour five-day week such a plan permits employees to draw 52 weeks' pay a year with two weeks off at full pay during that period.

Two Weeks' Holidays.

Holidays are taken by the entire plant, one week between Christmas and New Year's and the second week in July during Dominion day week. The drawing accounts are kept on a pro rata basis which provides for levelling off throughout the entire plant with increases and decreases in plant earnings. If there is danger of a slack season, warning goes to employees in advance that there may be a reduction in individual earnings for a certain period. In this way employees are able to keep free from debt and govern their expenditures.

"It definitely constitutes a working partnership between owner and worker without the corresponding investment on the part of the worker," Mr. McHale said, "but it also has compensations for the management because there are no labor disputes, strikes or walk-outs and time lost on matters like that are given to merchandising plans and attention to uninterrupted business at our plant."

Administrative Committee.

The plan calls for a special administrative committee of employees, Mr. McHale said, with a member from each department and a chairman. This committee determines any disciplinary action to be taken against an employee who might get out of line. "There is no back-tapping by a foreman with the advice to 'go get your pay.' A worker is given a hearing before a board of his fellow workers. Average service of our employees is 14 years, so there is very little trouble among them," he stated.

"The workers have their own auditors and can examine the books of the company. Disputes can go from the administrative committee to a

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general committee upon which the management sits in, and if discussion of a point in question is not settled by the general committee then it automatically goes to arbitration," he said.

Mr. McHale said the plan was originated by H. L. Nunn of the firm of Nunn and Bush, shoe manufacturers of Milwaukee. It is in force at the Nunn-Bush plant and has been for the past three years. The Nunn-Bush plant has about 700 employees(while the London company employs about 300 the year round.

"It eliminates the buying of labor as a commodity. It takes labor in as a partner, and so long as there is mutual confidence it is bound to work out successfully, as it gives labor a voice in the management of the business and also gives them a measure of responsibility in the running of that business to the success of all concerned.

The labor reserve finances constitute 22.2 per cent. of the company earnings over a year. With all employees on salary, but working on the drawing account basis, this money assures them of their 52 weeks' work because it builds up for the slack season when things are good," Mr. McHale explained.

Some weeks ago an agent who represented himself as an "industrial observer" called upon Mr. McHale and outlined an idea for entering the plant to "ferret out trouble makers and report on them." He explained to the manager that this was done in many plants in the United States and kept employers acquainted with the feelings of their employees. Mr. McHale heard this story, said he didn't need any. Then he told the agent why. The agent termed the plant "a Utopian factory" and left.

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Stock Control Manager, with many years of experience in this field, and with knowledge of a fool-proof system eliminating periodical inventories, is anxious to obtain position where such knowledge and experience is needed. Box 37, "Cost and Management."

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Young man with ten years' experience as Cost Accountant and Accountant, Production and Cost Control, desires position, preferably near Montreal. Fully capable of taking charge. Apply Box 39, "Cost and Management."

Accountant with both Industrial Accounting and Cost Accounting experience extending over fifteen years, is anxious for position. Thoroughly capable and would go anywhere for good position. Apply Box 40, "Cost and Management."

Young man with Accounting experience, at present studying Cost Accounting, is anxious for position in Montreal area. Well educated and fully capable. Apply Box 41, "Cost and Management."

Accountant, young, experienced and with excellent references, is anxious for position in Montreal or vicinity. Student of Cost Accountancy. Apply Box 42, "Cost and Management."

A Windowless Manufacturing Plant

In 1931 the Simonds Saw & Steel Co. built a windowless plant at Fitchburg, Mass., for the manufacture of the company's products—saws for cutting wood and metal, machine knives, files, and hacksaw blades. Owing to the business depression, however, the plant was not equipped or placed in operation at that time. It has now been decided to proceed to move into the new plant, which is said to be the largest and most modern saw and knife plant in the world. The products now made at the main Fitchburg and knife plant, the Fitchburg file and hacksaw plant, and the Chicago band saw and cross-cut saw plant will be manufactured in the new building. The complete moving and installation of machinery will require from eight to twelve months.

The original idea of building this windowless factory was to provide working conditions for factory employes that would equal those of any executive office. By providing artificial light of daylight quality, uniformity of lighting is assured at all times of the year and at all hours. The plant will be illuminated with special lights which were originally developed for this plant and which will give a uniform light intensity of 20 foot-candles on the working plane. The temperature of the plant will be controlled to prevent appreciable variations. Everything possible has been done to eliminate noise.

The plant covers almost five acres, all on one floor without any partitions whatever. It is completely air-conditioned with a system which allows for changing over 500,000 cubic feet of air every ten minutes.

